To:

## From the INTERNATIONAL BUREAU

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NOTIFICATION CONCERNING TRANSMITTAL OF COPY OF INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (CHAPTER I OF THE PATENT COOPERATION TREATY)

(PCT Rule 44bis.1(c))

Date of mailing (day/month/year) 03 January 2008 (03.01.2008)

Applicant's or agent's file reference GRIM3001PCT(1)

PCT/US2006/013863

International application No.

International filing date (day/month/year) 13 April 2006 (13.04.2006)

Priority date (day/month/year) 14 June 2005 (14.06.2005)

IMPORTANT NOTICE

Applicant

OSSUR HF

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

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Form PCT/IB/326 (January 2004)

# PATENT COOPERATION TREATY

# **PCT**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

|                                                                                                                                                                                                               |                                                          | ·                |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------|--|--|--|
| Applicant's or agent's file reference GRIM3001PCT(1)                                                                                                                                                          | FOR FURTHER ACTION                                       | See item 4 below |  |  |  |
| International application No. International filing date (day/month/year) Priority date (day/month/year) PCT/US2006/013863 13 April 2006 (13.04.2006) Priority date (day/month/year) 14 June 2005 (14.06.2005) |                                                          |                  |  |  |  |
| International Patent Classification (8t<br>See relevant information in Form f                                                                                                                                 | h edition unless older edition indicated)<br>PCT/ISA/237 |                  |  |  |  |
| Applicant<br>OSSUR HF                                                                                                                                                                                         |                                                          |                  |  |  |  |
|                                                                                                                                                                                                               |                                                          |                  |  |  |  |
|                                                                                                                                                                                                               |                                                          |                  |  |  |  |
|                                                                                                                                                                                                               |                                                          |                  |  |  |  |

|                                                           |                                                                                                                                                                                                                                                                                            | ·                                                |                                                                                                           |  |  |  |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|--|--|
| 1.                                                        | <ol> <li>This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the<br/>International Searching Authority under Rule 44 bis, 1(a).</li> </ol>                                                                               |                                                  |                                                                                                           |  |  |  |
| 2.                                                        | 2. This REPORT consists of a total of 5 sheets, including this cover sheet.                                                                                                                                                                                                                |                                                  |                                                                                                           |  |  |  |
|                                                           | In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.                                                                          |                                                  |                                                                                                           |  |  |  |
| 3.                                                        | 3. This report contains indications relating to the following items:                                                                                                                                                                                                                       |                                                  |                                                                                                           |  |  |  |
|                                                           | Box No. I                                                                                                                                                                                                                                                                                  | Basis of the report                              |                                                                                                           |  |  |  |
|                                                           | Box No. II                                                                                                                                                                                                                                                                                 | Priority                                         |                                                                                                           |  |  |  |
|                                                           | Box No. III                                                                                                                                                                                                                                                                                | Non-establishment of opin applicability          | ion with regard to novelty, inventive step and industrial                                                 |  |  |  |
|                                                           | Box No. IV                                                                                                                                                                                                                                                                                 | Lack of unity of invention                       |                                                                                                           |  |  |  |
|                                                           | Box No. V                                                                                                                                                                                                                                                                                  |                                                  | Article 35(2) with regard to novelty, inventive step or industrial explanations supporting such statement |  |  |  |
|                                                           | Box No. VI                                                                                                                                                                                                                                                                                 | Certain documents cited                          |                                                                                                           |  |  |  |
|                                                           | Box No. VII                                                                                                                                                                                                                                                                                | Certain defects in the international application |                                                                                                           |  |  |  |
|                                                           | Box No. VIII                                                                                                                                                                                                                                                                               | Certain observations on the                      | e international application                                                                               |  |  |  |
| 4.                                                        | 4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2). |                                                  |                                                                                                           |  |  |  |
|                                                           |                                                                                                                                                                                                                                                                                            |                                                  |                                                                                                           |  |  |  |
|                                                           |                                                                                                                                                                                                                                                                                            |                                                  | Date of issuance of this report<br>17 December 2007 (17.12.2007)                                          |  |  |  |
|                                                           | The International Bure                                                                                                                                                                                                                                                                     |                                                  | Authorized officer                                                                                        |  |  |  |
| 34. chemin des Colombettes<br>1211 Geneva 20. Switzerland |                                                                                                                                                                                                                                                                                            |                                                  | Dorothée Mülhausen                                                                                        |  |  |  |
| Facsimile No. +41 22 338 82 70                            |                                                                                                                                                                                                                                                                                            |                                                  | e-mail: pt01.pct@wipo.int                                                                                 |  |  |  |

Form PCT/IB/373 (January 2004)

# PATENT COOPERATION TREATY

| From the<br>INTERNATIONAL SEARCHING AUTHORITY                                                                            |                                                                                                                                                                      |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| To: Paul Y. Feng<br>Fulwider Patton Lee & Utecht, LLP<br>6060 Center Drive, Tenth Floor<br>Los Angeles, California 90045 | PCT  WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY                                                                                                        |  |  |  |  |  |
|                                                                                                                          | (PCT Rule 43bis.1)                                                                                                                                                   |  |  |  |  |  |
|                                                                                                                          |                                                                                                                                                                      |  |  |  |  |  |
|                                                                                                                          | Date of mailing (day/month/year) 18 SEP 2007                                                                                                                         |  |  |  |  |  |
| Applicant's or agent's file reference                                                                                    | FOR FURTHER ACTION  See paragraph 2 below                                                                                                                            |  |  |  |  |  |
| ROYCE-73526                                                                                                              |                                                                                                                                                                      |  |  |  |  |  |
| International application No. International filing PCT/US06/13863 13 April 2006                                          | date (day-month year) Priority date (day month year)  14 June 2005                                                                                                   |  |  |  |  |  |
| International Patent Classification (IPC) or both national class IPC(8) - A61F 5/02 (2007.01) USPC - 602/8               | ification and IPC                                                                                                                                                    |  |  |  |  |  |
| Applicant ROYCE MEDICAL COMPANY                                                                                          |                                                                                                                                                                      |  |  |  |  |  |
| This opinion contains indications relating to the following                                                              | g items:                                                                                                                                                             |  |  |  |  |  |
| Box No. 1 Basis of the opinion                                                                                           |                                                                                                                                                                      |  |  |  |  |  |
| Box No. II Priority                                                                                                      |                                                                                                                                                                      |  |  |  |  |  |
| Box No. III Non-establishment of opinion with                                                                            | x No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability                                                           |  |  |  |  |  |
| Box No. IV Lack of unity of invention                                                                                    |                                                                                                                                                                      |  |  |  |  |  |
| Box No. V Reasoned statement under Rule 43b citations and explanations supporting                                        | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |  |  |  |  |  |
| Box No. VI Certain documents cited                                                                                       |                                                                                                                                                                      |  |  |  |  |  |
| Box No. VII Certain defects in the international application                                                             |                                                                                                                                                                      |  |  |  |  |  |
| Box No. VIII Certain observations on the interna                                                                         | itional application                                                                                                                                                  |  |  |  |  |  |
| 2. FURTHER ACTION                                                                                                        | is made, this opinion will be considered to be a written opinion of the                                                                                              |  |  |  |  |  |
|                                                                                                                          | has notified the International Bureau under Rule 66. Ibis(b) that written                                                                                            |  |  |  |  |  |
| to the term and development to be a second                                                                               | vritten opinion of the IPEA, the applicant is invited to submit to the IPEA                                                                                          |  |  |  |  |  |
| For further options, see Form PCT/ISA/220.                                                                               | •                                                                                                                                                                    |  |  |  |  |  |
| For further details, see notes to Form PCT/ISA/220.                                                                      |                                                                                                                                                                      |  |  |  |  |  |
|                                                                                                                          |                                                                                                                                                                      |  |  |  |  |  |
| Name and mailing address of the ISA/US Date of completio                                                                 | on of this opinion Authorized officer:                                                                                                                               |  |  |  |  |  |
| Mail Stop PCT, Altn: ISA/US Commissioner for Patents 05 June 2007                                                        | Blaine Copenheaver                                                                                                                                                   |  |  |  |  |  |
| P.O. Box 1450, Alexandria, Virginia 22313-1450  Facsimile No. 571-273-3201                                               | PCT Helpdesk: 571-272-4300<br>PCT OSP: 671-272-7774                                                                                                                  |  |  |  |  |  |

Facsimile No. 571-273-3201
Form PCT/ISA/237 (cover sheet) (April 2007)

### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US06/13863

| Claims<br>Claims   | 1-20<br>NONE              | YES NO                                            |
|--------------------|---------------------------|---------------------------------------------------|
|                    |                           | ······································            |
| Claims             | NONE                      | NO                                                |
|                    |                           | •                                                 |
| S) Claims          | NONE                      | YES                                               |
|                    | 1-20                      | NO NO                                             |
| hility (IA) Claims | 1-20                      | YES                                               |
|                    | NONE                      | NO                                                |
|                    |                           |                                                   |
| ı                  | Claims bility (IA) Claims | Claims 1-20  bility (IA) Claims 1-20  Claims NONE |

Claims 1-7 and 9-20 lack an inventive step under PCT Article 33(3) as being obvious over Grim (US 5,437,614) in view of Riedel (US

Regarding claim 1, Grim discloses a hardenable orthopedic assembly applied to a portion of a patient's anatomy (col. 1, line 67 – col. 2, line 6), comprising a support body of at least one layer of material, the support body being at least partially impregnated with an activatable resin (col. 9, lines 34-47), a primary holding material having an initial unstretched length (col. 3, lines 67-68), and extending laterally from at least one side of the support body (fig. 2), wherein the primary holding material at least partially wraps around the portion of the patient's anatomy (col. 8, lines 17-46). Grim does not disclose wherein a final length of the primary holding material when stretched about 100 % is at least about 30 % longer than the initial length. However, Riedel discloses wherein a final length of the primary holding material when stretched about 100 % is at least about 30 % longer than the initial length (cot. 2, lines 46-48). At the time of the invention, it would have been obvious to one skilled in the art to use as a primary holding material a material when stretched about 100 % is at least about 30 % longer than the initial length, as taught by Riedel. The motivation for doing so would have been to avoid the tourniquet effect when the material is stretched.

Regarding claim 2, Grim discloses wherein wherein the support body is at least partially covered by one of a padding and a covering on

at least one side (col. 9, lines 34-37). Regarding claim 3, Grim does not disclose wherein the primary holding material is breathable and porous to ambient air. Riedel discloses wherein the primary holding material is breathable and porous to ambient air (col. 2, lines 12-15). At the time of the invention, it would have been obvious to one skilled in the art to utilize a primary holding material that is breathable and porous to ambient air, as taught by Riedel. The motivation for doing so would have been to enable atmospheric oxygen to interact with skin.

Regarding claim 4, Grim discloses wherein the primary holding material is substantially hydrophobic (col. 3, lines 67-68). Regarding claim 4, Grim discloses wherein the primary holding material is substantially hydrophobic (col. 3, lines 67-68).

Regarding claim 5, Grim discloses a hardenable orthopedic assembly applied to a portion of a patient's anatomy (col. 1, line 67 - col. 2, line 6), comprising a support body of at least one layer of material that is at least partially impregnated with an activatable resin (col. 9, lines 34-47), a primary holding material disposed on the support body extending laterally from the support body (fig. 2), wherein the primary holding material at least partially wraps around and holds to the portion of the patient's anatomy (col. 8, lines 17-46). Grim does not disclose wherein the primary holding material tears but does not separate when a stretch load L less than or equal to about 44 N and regards the primary holding material discloses wherein the primary holding material tears but does not separate when a stretch load. greater than or equal to about 5 N. Riedel discloses wherein the primary holding material tears but does not separate when a stretch load Liess than or equal to about 44 N and greater than or equal to about 44 N and greater than or equal to about 5 N (col. 3, line 41). At the time of the invention, it would have been obvious to one skilled in the art to use a primary holding material that tears but does not separate when a stretch load L less than or equal to about 44 N and greater than or equal to about 5 N, as taught by Riedel. The motivation for doing so would have been to ensure the stability of the support body while avoiding the tourniquet effect.

Regarding claim 6, Grim discloses wherein the primary holding material includes a section of stretchable material and a section of non-stretchable material (col. 3, line 67 – col. 4, line 1 and col. 4, lines 5-8).

Regarding claim 7, Grim does not disclose wherein the primary holding material initiates a tear but does not separate when a tensile load L less than or equal to about 13.4 N and greater than or equal to about 5 N is applied. Riedel discloses wherein the primary holding material initiates a tear but does not separate when a tensite load L less than or equal to about 13.4 N and greater than or equal to about 5 N is applied (table entitled, "Properties of the New Materials," entry 10).

At the time of the invention, it would have been obvious to one skilled in the art to use a primary holding material that initiates a tear but does not separate when a tensile load L less than or equal to about 13.4 N and greater than or equal to about 5 N is applied, as laught by Riedel. The motivation for doing so would have been to ensure the stability of the support body while avoiding the tourniquet effect. Regarding claim 9, Grim discloses wherein the support body and the primary holding material include respective complementary areas

having means for tacking (col. 8, lines 20-23).

Regarding claim 10, Grim discloses wherein the means for tacking includes an adhesive (col. 2, lines 38-41), Regarding claim 11. Grim discloses wherein the means for tacking includes hook and loop fasteners (col. 2, lines 38-41).

Regarding claim 12, Grim discloses wherein the means for tacking includes hook fasteners and a UBL material (col. 2, lines 38-41).

Continued in Supplemental Box

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US06/13863

### Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Box V

Regarding claim 13, Grim discloses a hardenable orthopedic assembly applied to a portion of a patient's anatomy (col. 1, line 67 - col. 2, line 6), comprising a support body having opposed ends and opposed sides of at least one layer of material, wherein the support body is at least partially impregnated with an activatable, hardenable resin (col. 9, lines 34-47); a separate primary holding material having an initial unstretched length (col. 3, lines 67-68), and extending laterally from at least one side of the support body (fig. 2), wherein the primary holding material at least partially wraps around the portion of the patient's anatomy (col. 8, lines 17-46). Grim does not disclose wherein the primary holding material can be stretched up to about 30 % of the initial length with a tensile load L of about 4.5 N to about 6.7 N. Riedel discloses wherein the primary holding material can be stretched up to about 30 % of the initial length with a tensile load L of about 4.5 N to about 6.7 N. (table entitled, "Properties of the New Materials," entry 15). At the time of the invention, it would have been obvious to one skilled in the art to use a primary holding material that be stretched up to about 30 % of the initial length with a tensile load L of about 4.5 N to about 6.7 N, as taught by Riedel. The motivation for doing so would have been to ensure the stability of the support body white avoiding the tourniquet effect.

Regarding claim 14, Grim discloses wherein the support body is sandwiched in between a covering and padding (col. 9, lines 50-63).

Regarding claim 15, Grim discloses wherein the covering includes a hook receivable material (col. 8, lines 17-20).

Regarding claim 16, Grim does not disclose wherein the primary holding material tears but does not separate when a tensile load L less than or equal to about 13.4 N and greater than or equal to about 5 N is applied. Riedel discloses wherein the primary holding material man or equal to about 10.4 in and greater man or equal to about 5 in its applied. Interest of closes wherein the primary holding material initiates a tear but does not separate when a tensile load L less than or equal to about 13.4 N and greater than or equal to about 5 N is applied (table entitled, "Properties of the New Materials," entry 10). At the time of the invention, it would have been obvious to one skilled in applied (table entitled, "Properties of the New Materials," entry 10). At the time of the invention, it would have been obvious to one skilled in the art to use a primary holding material that initiates a tear but does not separate when a tensile load L less than or equal to about 13.4 N and greater than or equal to about 5 N is applied, as taught by Riedel. The motivation for doing so would have been to ensure the stability of the support body while avoiding the tourniquet effect.

Regarding claim 17, Grim does not disclose wherein the primary holding material has a width of about 1 inch to about 6 inches. However, Riedel discloses wherein the primary holding material has a width of about 6 inches (col. 2, lines 19-21). At the time of the invention, it would have been obvious to one skilled in the art to select a primary holding material having a width of about 1 inch to about 6 inches, as taught by Riedel. The motivation for doing so would have been to ensure an adequate recovery force for the primary holding material.

Regarding claim 18, Grim does not disclose wherein the primary holding material can be stretched up to about 30 % of the initial length with a tensile load L of about 4.5 N. Riedel discloses wherein the primary holding material can be stretched up to about 30 % of the initial length with a tensile load L of about 4.5 N (table entitled, "Properties of the New Materials," entry 15). At the time of the invention, it would have been obvious to one skilled in the art to use a primary holding material that be stretched up to about 30 % of the initial length with a tensile load L of about 4.5 N, as taught by Riedel. The motivation for doing so would have been to ensure the stability of the support body

while avoiding the tourniquet effect. Regarding claim 19, Grim does not disclose wherein the support body includes a strip form and can be arranged in a roll. Riedel discloses wherein the support body includes a strip form and can be arranged in a roll (col. 3, lines 39-40). At the time of the invention, it would have been obvious to one skilled in the art to arrange the primary holding material into a roll, as taught by Riedel. The motivation for doing so would have been to manage the storage of the material.

Regarding claim 20. Grim discloses wherein the primary holding material includes opposite ends and each end includes a means for tacking (col. 4, lines 5-8).

Claim 8 lacks an inventive step under PCT Article 33(3) as being obvious over Grim (US 5,437,614) in view of Riedel (US 4,366,814), further in view of Klein et al. (US 5,341,513).

Grim discloses wherein the primary holding material includes a shape consisting of an elongated strap form (figs. 1-2). Klein et al. disclose a primary holding material including a shape selected from the group consisting of a polygonal wing form, and a curved wing form (Fig. 2). At the time of the invention, it would have been obvious to one skilled in the art to use a holding material including a shape selected from the group consisting of a polygonal wing form, and a curved wing form, as taught by Klein et al. The motivation for doing so would have been to hold the support body with a tab and slot arrangement.

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in the industry.